

Full 3D Plant Design

Plant design by using AutoCAD® Plant 3D

We started to use 3D CAD software (AutoCAD® Plant 3D) in plant design since 2010, and we apply it to all EPC projects now.

As we can import the data of drawings of equipment and buildings into the CAD program, we develop 3D models with high precision in a short time. In the Feasibility Study phase, we can share the overall image of the plant that is “visualized” by a 3D model. The image will consist of buildings and equipment.

Space design in the project execution phase which includes equipment layout, piping layout, E&I layout is designed in 3D CAD directly. Therefore, we can provide a “visualized” comprehensive 3D model to all clients.

3D model design review

Utilizing comprehensible 3D model and reviewing the design with the client several times enable us to investigate the plant space design from various angles before the project starts, such as equipment layout, maintenance access, VE/cost reduction, working plan, measure for plant expansion in the future, etc.

Our drawings such as equipment layout, piping layout, piping isometric drawing, piping BOQ, etc., are prepared automatically from 3D CAD data. The project will proceed with drawings and materials that are exactly the same as the 3D model. Design mistakes such as interference etc. are checked by 3D CAD. Therefore, we can construct the high-quality plant in a short period with very little rework at the construction site.

After plant construction completes, we will provide the as-built 3D model and drawings to the client. The client can use the as-built 3D model to consider operation, maintenance, plant expansion or modification. If the client requests us to modify or expand the plant at the next project, we will use this as-built data of 3D CAD to plan, consider and design, so we will be able to execute modification and expansion work in a short time.

